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AIRPORTS AND AVIATION IN LATIN AMERICA

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AIR TRANSPORT DIVISION

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AIRPORTS AND AVIATION IN LATIN AMERICA

Kenneth E. Calender

It is obvious that the subject of my presentation encompasses so much territory and such a volume of airline operations that I can only touch a few of the high points. Incidentally, for the purpose of this discussion I have taken the liberty of defining the Latin Americas as all territories south of the United States down to Cape Horn. An attempt will be made to give you a few of what are considered interesting contrasts between aviation in the Latin Americas and domestic aviation in the United States, point out a few of the activities of airlines in the Latin Americas which are not common in our own country, and also describe a few of the problems facing the aviation industry in the Latin American Countries. It would be well to mention here that in describing any of the existing problems, there is no intention to imply in any way that every effort is not being made to solve all these problems, or that any country has been negligent.

Possibly one of the most striking differences between domestic aviation in Latin countries and domestic aviation in the United States is the fact that Latin American national air transportation is more utilitarian, more diversified. This statement requires considerable definition and expansion. Basically it implies that aviation is more of a necessity in the Latin countries and that it serves a greater variety of persons, objects and purposes. In the United States we use national aviation as a better means of doing something that could be done by alternate methods. We are fortunate in having extensive railroad and highway surface transportation facilities which in most instances can be used equally as well for the transportation of persons and products as the airplane, except for the element of time, which element is often important only from the competitive viewpoint. However in most of our Latin countries there are no such alternate facilities available.

Let us look at Brazil for a moment. This is a country with an area of three million, two hundred and ninety-one thousand square miles. Information just supplied from Rio shows that Brazil now has only four hundred and sixty miles of paved all-weather highways, though they do have an extensive program planned and under way for expanding this network. Brazil's railway system consists of approximately twenty-three thousand miles. Twenty-six thousand miles of navigable waterways supplement this. The population of Brazil is approximately fifty-four million. Now, let's compare this with the United States. Here we find an area of three million and twenty-two thousand square miles, or slightly smaller than Brazil. We have a population of approximately one hundred and sixty million. Contrasted with Brazil, we find approximately one million, and eight hundred thousand miles of paved highways, three hundred and seventy-five thousand miles of railroads, and twenty-seven thousand three hundred miles of waterways plus the Great Lakes available to furnish our population with surface transportation. It is noted that the ratio of these facilities to Brazil is approximately four thousand to one for highways, one to one for waterways plus lakes, and sixteen to one for railroads, though our area is one to one and our population ratio is approximately three to one. All of us are familiar with the phenomenal progress being made by Brazil

in the past few years and after consideration of the above figures, it is easy to imagire the large part that air transportation must be playing, since surface transportation simply isn't available on the required scale. Aviation is a necessity, not an alternate method of transportation.

The length of time needed by surface transportation can also be demonstrated by examining some current available figures from our nearer neighbor, Columbia. Local airlines make the trip from Bogota, the Capital of the country, to Mitu on the southeastern border of Columbia is slightly over three and a half hours. The best available land transportation for that same trip to day takes from fourteen to twenty one days. The trip from Bogota to Cucuta on the northeast coast of Columbia takes one hour and forty five minutes by air and two days by land. The overland trip from Barranquilla on the northern tip of Columbia to Ipiales on the southeast coast of Columbia takes eight days, while the same trip is now made by air in three hours and twenty minutes. Most of us would have little trouble making up our minds which mode of transportation to use if these alternates were presented to us. As can be imagined, the Columbian citizen also selects air transportation, even many of those in the very low income brackets.

Properly the diversity of activities by South American airlines can best be understood by briefly reviewing the activities of a Columbian operator. Reference is made to the oldest airline in the Americas, having one of the most extensive domestic networks of any country, and being the world's leading carrier of air freight and air express in terms of pounds transported. The cargo operation of this airline accounts for approximately thirty percent of the total revenue as compared to an average of six and one-half percent for domestic airlines operating in the United States.

Now, we will take a look at some of the unique money making activites of this airline, which they carry on in addition to such things as operating a large communications network throughout the nation, and large maintenance and overhaul shops. First, they own and operate some fifty airports. These range from main International airports of entry to very remote landing strips in sparsely settled areas. These privately owned airports are open to all comers for landing fees which are limited by the government. In addition to owning and operating these airports, in a few cases airports are municipal or state owned and the airline acts as administrator by arrangements with the local authorities. In these cases, they operate the control towers and all other technical services.

Possibly the most interesting and unique feature of their operation is the administration of the air mail service by delegation from the national government. The mail is not only carried by them but the airline actually operates post offices. Their post office operation includes all of the usual postal services like selling stamps, handling registered mail and the sale of money orders. They also take the final step, that of actually delivering the mail to the addressee. For this purpose they maintain a staff of approximately three hundred letter carriers. In order to perform this air mail service, the airline has a post office or section along with every one of the ticket offices throughout the country and in addition to that, some substations where volume warrents. A portion of the revenue on stamp sales is turned over to the government and the airline retains the balance as compensation for performing the postal services and transporting the mail. This has often been referred to as "subsidy in reverse" as the existing arrangement permits the government to realize a sizeable revenue at relatively little expense.

This airline has also demonstrated its ability to participate and cooperate

in another field of aviation. They have cooperated with a major aerial survey organization in executing extensive aerial photographic and mapping programs for governmental agencies, various oil companies and engineering firms.

A wholly owned feeder line is proving an interesting and profitable enterprise for this airline. This feeder line is operated with eight Cessna 195's and one Norseman aircraft. This feeder line operates mostly charter or special services, but it does fly some regular schedules. A counter card in one of the ticket offices is probably the best possible description of the feeder line's activities. The counter card reads "Don't ask us where we fly - tell us where you want to go." In the interior of Colombia the agents of the parent airline and feeder line are featuring a purchasing service handling a wide variety of items. This service has been described by some persons as "needle to icebox" purchasing. The service consists of the company agents taking orders for almost any item and the agent will then see that the purchase is made at the nearest available point and returned to the airline office by the next flight. The amazing thing about this service is that no commission or surcharge is levied, the only remuneration being the standard express or freight rates charged for transportation of the merchandise from its point of purchase.

In 1951 through a stock exchange, this parent airline procured their strongest national competitor, a competitor carrying up to 250,000 passengers per year. Public opinion was strongly against this purchasing of their principal competition. They therefore decided to operate this previous competitor as a separate entity, though many of the routes of the two companies were parallel. They have been very successful with this separate operation, having established fares that are in general from 15% to 20% below the parent companies fares on parallel routes. The operation is satisfactory financially and the unfavorable public opinion has been erased.

There is an item in the airline's organizational setup which cannot be passed without comment. The Government has only a limited financial participation of two percent in the company. However, the Board of Directors of the company includes two members designated by the Government. Over a period of years this has been a big contributing factor in the airline's success and has surely assured coordination of the carrier's policies as a private company with over-all Governmental policy. Perhaps this is a more direct method than some of the administrative procedures with which we are all familiar.

Airport operators and airline operators are giving more and more attention to the problem of reducing the time which an airplane remains on the ramp and increasing the over-all efficiency with which passengers and other items going on and off an airplane are handled. Avianca has not failed to devote study to this problem and to pioneer in seeking a mechanical solution. This is especially true relative to their cargo installation. In 1951 they cooperated with an equipment company in having the first Loadair Dock produced for sale installed at one of their busiest airports. As most of you gentlemen are aware, Loadair is a means of transporting aircraft by electrically operated dollies on rails flush with the ramp. These dollies move the aircraft laterally into position beside a fixed ramp. The airline officials estimate that their Loadair installation has reduced cargo ramp time by fifty percent in all. Using this equipment they have on occasion been able to unload a cargo C-54 in as little as eight minutes and have made a complete turn around of a cargo airplane in less than thirty minutes. Maybe the day will yet come when our ramps will look like a railroad switch yard with all of the plane handling on the ramp done by pushing buttons on a control tower.

All of us are constantly confronted with the problem of trying to eject our own particular activities in the field of aviation into the future as far and as accurately as possible. The story of this unique Latin American would not be complete without a few comments about its future thinking. The largest aircraft presently operated by this company are two Lockheed 749-A Connies. They have on order three Lockheed Constellation 1049-E series with the compound engines and stressed to a hundred and fifty thousand pounds gross. Beyond this they have not arrived at any definite conclusions about equipment. They do state two very definite problems which are common in almost every Latin American country where I have talked with airline operators. First, they are in need of a cargo plane. This should be a real honest-go-God freighter work-horse, capable of being operated in mountainous terrain, on small airports under difficult climatic conditions. Not only does such a plane seem to be unavailable but there is an amazing lack of interest in the industry for developing such an aircraft. To some of us this seems hard to understand since all statistics and operations indicate that this phase of aerial transportation is truly only in its infancy. Its potentials are still unknown but are unquestionably tremendous. The second equipment problem is a replacement for DC-3's. These continue to be the most widely used passenger planes throughout Latin America. In spite of the fact that they have been considered obsolete for years, it is awfully difficult to find an operator who wants to give up one or who believes there is anything better available or on the boards for domestic operations in Latin American countries.

Now to mention some of the general problems of aviation in the Latin Americas for just a few minutes. Basically, they are no different from those encountered in the United States. Government agencies and operators are faced with the problem of providing adequate terminals, adequate airports, perfect communication coverage, search and rescue facilities, and sufficient all weather landing aids. Of course, the key to provision of all these facilities is financing. However, there are a few differences which make financing even more difficult than the problems which we have here at home. The travelling public in most Latin countries has not yet been educated to the use of parking meters, parking lot charges, observation ramp charges, and the patronizing of numerous terminal concessions. Most concessions in Latin American terminals are established primarily for the departing tourists or for the in transit passengers. Few of them are actually patronized by the local citizens. Also the establishment of allied aviation industries on airports is still in its infancy in the Latin Americas. All of these factors add to the financing problems.

Some of you may not be aware that we still have a few countries in the Latin Americas that do not have a paved airport at their capitals, or at any other major port of entry. Noticeable among these are Ecuador and Bolivia. Quito, capital of Ecuador, is now served by a sod runway 7,526 feet in length and elevation 9,236 feet. Service with DC-4 aircraft has just been started to Quito within the last two weeks. On past occasions it has been necessary to suspend all services to this capital during periods of long extended heavy rainfall. The other main port of entry in Ecuador, namely Guayaquil, does not have a paved runway as we commonly accept the definition, though they do have an aggregate strip with landing lights. With constant maintenance this strip does permit Guayaquil to be served by DC-6 and DC-6-B aircraft, with considerable damage being sustained by tires and surfaces from the loose materials on the runway.

Now we will take a brief look at Bolivia, a Republic with an area of some four hundred and sixteen thousand square miles. In Bolivia there are five major cities, namely LaPaz, the actual capital in effect, Cochabamba, a large commerical center, Oruro, the key to the tin mining area, Potosi, center of the gold and silver mining, and Sucre, the legal capital of the Republic. Of these five principal cities, only Cochabamba has a paved airport. A very adequate field was constructed at that city, by the Airport Development Program which developed U. S. air bases in South America during World War II. Most of you are familiar with the fact that the El Alto Airport at LaPaz, Bolivia is considered to be the highest major airport in the world. This airport has a runway length of 10,234 feet and an altitude of 13,398 feet. To further complicate matters, the gradient is 1.4%. In spite of this altitude and the fact that the runway surface is only sod and gravel, LaPaz is presently being serviced with DC-4 aircraft by more than one operator. JATO was tried for emergency use, such as the loss of power from one or more engines, but later discontinued. The story of the two years of precautions, studies, experiments, trials and calculations that went into the preparation for the use of four engine aircraft at the LaPaz Airport fill more than one sizable volume. Sucre and Potosi in Bolivia both have airports where landings must be made uphill and takeoffs made downhill, due to the excessive grade. In addition to the fact that these runways are uphill, it was only recently that doglegs or curves were eliminated. It was quite a thrill going into Potosi on a C-46 and landing with the wind at an elevation of 13,000 feet with a gross in excess of forty-six thousand pounds. At Oruro the situation is somewhat better as the altitude is only 12,149 feet and the runway is actually level, with 6,560 foot length. But the strip is relatively low compared with surrounding land and several drainage problems are entailed in rainy seasons. Bolivia also has a much used unpaved airport at Uyuni, at elevation 12,037 feet. Thus we see that of Bolivia's six major airports five are at an elevation above 10,000 feet and none of these five are yet paved. With a population of only 4,000,000 people, of which more than fifty percent are Indians, some very careful planning will be necessary to find the funds for the required construction. Incidentally, C-46 operation was previously mentioned. This was discontinued after a few months, being considered unfeasible. A few converted B-17's were then put in operation. Bolivia is now serviced domestically by DC-3's and these converted B-17's.

There is actually one case among our neighbors where ground facilities have been over-built. This is Buenos Aires, Argentina. Just at the end of World War II Argentina's economy was at a very favorable peak and their national and international air transportation was growing by leaps and bounds. A new airport was planned and constructed with the general criteria of building the largest and best terminal and airport in the world. Traffic projections were based solely on the war and immediate post-war years. Worldwide post-war events adversely affected Argentina's economy to a serious degree. When the airport was constructed it was planned that an Express Highway would serve it from a downtown central airlines terminal. The first thirty blocks in the dense city traffic were to be handled by an underground tunnel. This would have resulted in a downtown to airport ground time of twenty minutes. Funds became scarce and only the portion of the highway near the airport was constructed. Consequently, the airport is now reached by a circuitous route which takes fifty minutes. Most of the domestic operators using two-engine aircraft therefore decided to continue to operate at a smaller airport closer to the city which requires only about a fifteen minute ground time. Thus, Buenos Aires finds itself with a splendid terminal building

and airport including three long paved runways and apron enough to accommodate thirty planes simultaneously, but unfortunately there is not nearly enough revenue to support the investment which was made.

Naturally, with the vast expanses and the sparsely inhabited territory, communications and search and rescue are two major problems with almost all of our neighbors to the south. Tremendous steps are being made in the modernization of communication facilities. As would be expected very high frequency omni-directional facilities conforming with ICAO Standards are the order of the day. Figures as to just how many of these installations are contemplated were not available to me, but Brazil alone has more than thirty installations on order.

Search and rescue will remain a difficult problem for many years. However, progress has been and will continue to be made surely and steadily. Every meeting of International Air Transport Association Committee and International Civil Aviation groups gives this problem high priority. Maximum utilization is now being obtained from the facilities available.

It would be inappropriate to close this paper without mentioning that our own Civil Aeronautics Administration has made immeasurable contributions of practical and technical nature to many of our Latin American neighbors. Our military forces have also contributed generously. However, in the last few years the International Civil Aviation Organization, ICAO, is the agency exerting the largest influence and offering the greatest amount of general guidance to our neighbors to the south. The accomplishments of this young world-wide organization in standardizing air traffic control, communication procedures, dispatching, documentation, air route procedures and language terminology have been nothing short of phenominal. The success of ICAO in our neighboring countries to the south and in the rest of the world might well be reviewed by some other world-wide advisory and regulatory bodies.